

## PATENT SPECIFICATION



Application Date : May 30, 1924. No. 13,352/24.

238,327

Feb. 4, 1925. No. 3160/25.

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## PROVISIONAL SPECIFICATION.

No. 13,352, A.D. 1924.

## Improvements in Coverings for Glass Lamp Shades or Reflectors.

We, HOWARD MARRYAT, trading as Marryat and Place, of 28, Hatton Garden, London, E.C. 1, and ROLLO GILLESPIE WILLIAMS, of 82, Alexandra Road, Wimbledon, in the County of Surrey, British subjects, do hereby declare the nature of this invention to be as follows:—

This invention relates to reflecting coverings for prismatic, ribbed, corrugated or other glass lampshades or reflectors and has for its object to produce a dust proof covering which has a high efficiency as a reflector, is light and is capable of being ornamented in many ways.

According to our invention, the exterior surface of the prismatic or other shade or reflector is provided with a covering of papier mâché or other suitable plastic material which is shrunk on so as to form an air tight joint with the glass shade at the top and bottom edges thereof, and which has in its interior a layer of, e.g. white, reflecting material which, in the case of prismatic, ribbed, or like shades, rests only on the angles or crests of the prisms or ribs and is not in optical contact with the remaining parts of the exterior surface of the glass shade.

For this purpose, the papier mâché or other plastic covering, hereinafter referring to as papier mâché, is made in a mould to fit the shape of the glass shade, and while in such mould it has an inner covering of white or coloured paper or composition applied to it in a moist condition, such paper being of such a nature as to stretch where necessary to enable it to fit smoothly over the curved surface of the glass. Before the papier mâché shape is quite dry the glass reflector is inserted into the mould and the papier mâché covering whilst still moist turned over the bottom edge of the glass reflector. The upper edge of the papier mâché

covering fits closely up to the annular rib or flange on the glass for engaging the screws or clips of the gallery. The mould is then removed and the papier mâché shape dried. In drying it shrinks so that it tightly fits the outside of the glass reflector, while the paper lining adheres to both the glass and to the papier mâché covering, sealing up the joints at the top and bottom of the glass reflector and enclosing the outside of the glass reflector in an airtight and dust-proof covering.

One advantage of applying the papier mâché covering as above mentioned is that the papier mâché does not shrink into the spaces between the prisms, ribbings or the like on the outer surface of the glass reflector but rests only on their outer edges, thus avoiding optical contact with the surfaces of the prisms. The glass reflectors covered may be of all the shapes used in practical work.

By using a composite reflector consisting of a glass reflector having a prismatic or ribbed outer surface, and a papier mâché covering or shape lined with a white or other colour reflecting substance the efficiency of the shade as a light reflector is increased; the outside of the glass reflector having prisms ribbings and the like is kept perfectly clean, so that the prisms are maintained at their highest efficiency, which would not be the case if they were to become dirty.

Moreover the composite reflector weighs less than would be the case if the outer covering were of metal thus putting less strain upon the fittings holding it.

The papier mâché may be decorated externally in any colour, or coated to imitate bronze or other metal.

Dated this 30th day of May, 1924.

D. YOUNG & Co.,

11 & 12, Southampton Buildings,  
London, W.C. 2,

Agents for the Applicants.

[Price 1/-]

## PROVISIONAL SPECIFICATION.

No. 3160, A.D. 1925.

**Improvements in Coverings for Glass Lamp Shades or Reflectors.**

We, HOWARD MARRYAT, trading as Marryat and Place, of 28, Hatton Garden, London, E.C. 1, and ROLLO GILLESPIE WILLIAMS, of 39, Southdown Road, Wimbledon, in the County of Surrey, British subjects, do hereby declare the nature of this invention to be as follows:—

This invention relates to reflecting coverings for prismatic, ribbed, corrugated or other glass lampshades or reflectors, and has for its object to produce a dust proof covering, which has a high efficiency as a reflector, is light and is capable of being ornamented in many ways, and is more especially designed as an improvement on or modification of the coverings disclosed in the Specification of our former Application for Letters Patent No. 13,352 of 1924.

According to the present invention, the white or coloured inner or reflecting portion of the covering is made separately from the remaining portion of the covering and is placed in position on the glass shade or reflector in a dry condition, means being provided in some cases for preventing the passage of moisture through the inner covering to the space or spaces between such covering and the surface of the glass, for example the surface of such layer is treated with a suitable waterproof varnish or compound to render it impermeable. In some cases, the inner reflecting covering may be made of a suitable composition or material

which becomes plastic when heated, such as a non-inflammable celluloid known under the registered trade mark "celastoid".

The inner reflecting portion of the covering may be prepared on a suitable former and may be of the same or of different shape to the exterior of the glass shade or reflector, for example the interior of the inner layer may be arranged at a distance from the glass at one or more places so as to vary the distribution of the light.

Moreover, in order to prevent cracking of the outer papier mâché layer during the contraction of the same which takes place during the drying, a layer of asbestos or other resilient material is arranged between the inner and outer layers or parts of the covering. Such asbestos layer may also be continued inwards so as to form the uppermost part of the inner layer, *i.e.* at the place where the shade fits closely round the holder of the glow lamp and the temperature is consequently a maximum.

By treating the exterior surface of the outer covering with a suitable waterproof enamel, paint or varnish, the covering may be adapted for use in the open air.

Dated this 4th day of February, 1925.

D. YOUNG & Co.,  
11 & 12, Southampton Buildings,  
London, W.C. 2,  
Agents for the Applicants.

## COMPLETE SPECIFICATION.

**Improvements in Coverings for Glass Lamp Shades or Reflectors.**

We, HOWARD MARRYAT, trading as Marryat and Place, of 28, Hatton Garden, London, E.C. 1, and ROLLO GILLESPIE WILLIAMS, formerly of 82, Alexandra Road, now of 39, Southdown Road, Wimbledon, in the County of Surrey, British subjects, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to reflecting coverings for prismatic, ribbed, corrugated or other (*e.g.* plain) glass lampshades or reflectors and has for its object to produce a dust proof covering, which

has a high efficiency as a reflector, is light and is capable of being ornamented in many ways.

According to the invention, the glass lampshade or reflector has a reflecting covering secured to its exterior surface by means of a layer of papier mâché or like plastic material hereinafter referred to as papier mâché. This inner reflecting covering may advantageously consist of a layer of suitable heat resisting paper, which in the case of prismatic, ribbed or like shades or reflectors, rests on the angles or crests of the prisms or ribs of the shade or reflector and is not in optical contact with the remaining parts of the exterior surface of such shade or reflector.

The inner or reflecting layer or portion of the covering is preferably made separately from the remaining portion of the covering and is placed in position on the glass shade or reflector in a dry condition. The reflecting surface may be formed by the material of the inner layer itself or by pigment applied thereto in any suitable manner.

In some cases a layer of resilient material such as asbestos fibre is arranged between the inner or reflecting layer or portion of the covering and the layer of papier mâché or like material. Moreover the covering may be reinforced *e.g.* at the parts where the surface is curved inwards, by means of strips, bands or layers of textile or other material of greater mechanical strength, or by metal rings or frames.

In a further modification, the inner layer may be dispensed with and the reflecting surface formed by papier mâché or like plastic material either alone or treated with a suitable heat resisting pigment and so arranged as to form an airtight and dust-tight joint with a prismatic, ribbed or corrugated shade or reflector at the top and bottom borders thereof.

In the accompanying drawing, we have shown how our said invention may be conveniently and advantageously carried into practice. In this drawing:—

Figure 1 shows a glass shade of a known type having a prismatic outer surface.

Figure 2 is a view of the same shade shown partly in vertical section having our improved reflecting covering applied thereto.

Figure 3 is a fragmentary section on the line X—X, Figure 2, and

Figure 4 shows the complete shade in side view.

Figure 5 shows a modified form of shade in vertical section.

In carrying the invention into practice, the inner reflecting layer or portion A of the covering, which may be white or coloured, is prepared on a suitable former which may be of the same shape, *e.g.* as in Figures 2, 3, and 4, as the glass reflector B; or it may be of different shape, *e.g.* as in Figure 5, to such glass reflector, so that the distribution of light is varied. This inner layer or portion of the covering is placed in position on the glass shade B in a dry condition, means being provided in some cases for preventing the passage of moisture through it to the space or spaces between the covering and the surface of the glass, for example the surface of such layer is treated with a suitable waterproof varnish or compound to render

it impermeable. In some cases, the inner reflecting covering may be made of a suitable composition or material which becomes plastic when heated, such as a non-inflammable celluloid known as celastoid, such name being a registered trade mark.

The papier mâché or other plastic material C forming the outer layer or portion of the covering is made in a mould to fit the exterior of the inner layer or portion of the covering, and while in such mould and when partially dry the inner layer or portion is placed in position. The glass shade or reflector is then placed therein and the papier mâché covering while still moist turned over the bottom edge of the glass reflector. The upper edge of the papier mâché covering fits closely up to the annular rib or flange D on the glass for engaging the screws or clips of the gallery. The mould is then removed and the papier mâché shape dried. In drying it shrinks so that it tightly grips the glass reflector, while the inner layer or portion of the covering adheres to both the glass and to the papier mâché covering, sealing up the joints at the top and bottom of the glass reflector and enclosing the outside of the glass reflector in an air-tight and dustproof covering.

In a modification the papier mâché layer is formed directly on the outside of the inner layer or portion of the covering after the latter has been dried as above mentioned.

In cases where the reflecting layer next the glass is formed of celastoid or similar material, an intermediate layer of paper or other suitable material is arranged between the celastoid or similar material and the outer layer of papier mâché. If a reinforcement, *e.g.* of textile material is employed, it may be advantageously arranged between the layer of paper and the outer covering of papier mâché.

One advantage of applying the papier mâché covering as above mentioned is that the papier mâché does not shrink into the spaces between the prisms, ribbings or the like on the outer surface of the glass reflector, but rests only on their outer edges, thus avoiding optical contact with the surfaces of the prisms. The glass reflectors covered may be of all the shapes used in practical work.

By using a composite reflector consisting of a glass reflector having a prismatic or ribbed outer surface, and a papier mâché covering or shape lined with a white or other colour reflecting substance the efficiency of the shade as a light reflector is increased; the outside of the glass reflector having prisms ribbings or

the like is kept perfectly clean, so that the prisms are maintained at their highest efficiency, which would not be the case if they were to become dirty.

Moreover the composite reflector weighs less than would be the case if the outer covering were of metal thus putting less strain upon the fittings holding it.

In order to prevent cracking of the outer papier mâché layer during the contraction of the same which takes place during the drying, a layer of asbestos or other resilient material may be arranged between the inner and outer layers or parts of the covering. Such asbestos layer may also be continued inwards so as to form the uppermost part of the inner layer, i.e. at the place where the shade fits closely round the holder of the glow lamp and the temperature is consequently a maximum.

By treating the exterior surface of the outer covering with a suitable waterproof enamel, paint or varnish, the covering may be adapted for use in the open air.

The covering may be reinforced preferably by one or more layers of open mesh textile fabric; or by means of metal rings or frames spun to fit the exterior surface of the inner or outer layer. Such metal rings or frames may have fingers or lugs formed thereon to engage the flange D so as to retain them in position.

The papier mâché may be decorated externally in any colour, or coated to imitate bronze or other metal.

We are aware that it has already been suggested to provide a prismatic reflector for indirect lighting with a translucent covering of papier mâché applied to its smooth under or outer surface, and we therefore do not wish to cover such a covering.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A covering for a prismatic, ribbed, corrugated or plain glass lampshade or reflector, said covering comprising a layer or portion which has an inner reflecting surface and which is secured to the exterior surface of the shade or reflector by means of an exterior layer of papier mâché or like plastic material.

2. A form of the covering claimed in Claim 1, wherein the reflecting surface is formed by the inner surface of a layer of paper which rests on the angles or crests of the prisms or ribs of the glass shade or reflector and is not in optical contact with the remaining parts of the

exterior surface of the glass shade or reflector.

3. A form of the covering claimed in Claim 1 or in Claim 2, wherein the inner layer or portion of the covering bearing the reflecting surface is made separately from the remaining portion of the covering and is placed in position on the glass shade or reflector in a dry condition.

4. A form of the covering claimed in Claim 3, wherein the inner layer or portion of the covering bearing the reflecting surface is rendered impervious to moisture, for the purpose specified.

5. A form of the covering claimed in any of Claims 1 to 4, wherein the inner surface of the innermost layer or portion of the covering is treated with a pigment.

6. A form of the covering claimed in any of Claims 1 to 5, wherein a layer of resilient material is arranged between the inner layer or portion of the covering bearing the reflecting surface and the layer of papier mâché or like material.

7. A form of the covering claimed in any of Claims 1 to 6, wherein the covering is reinforced for example by means of strips of textile fabric, for example at the parts where the surface is curved inwards, substantially as described.

8. A form of the covering claimed in any of Claims 1 to 7, wherein the inner reflecting surface is formed by a layer of celastoid or similar material.

9. A form of the covering claimed in Claim 8, wherein a layer of paper is arranged between the celastoid or like material and the outer covering of papier mâché.

10. A prismatic, ribbed or corrugated lampshade or reflector having a covering of papier mâché or like plastic material, which forms an air-tight and dustproof joint with the shade or reflector at the top and bottom borders thereof.

11. A form of the covering claimed in Claim 6, wherein the layer of resilient material is formed of asbestos which is continued inwards so as to form the uppermost part of the inner layer of the covering, substantially as described.

12. The improved reflecting coverings for glass lampshades or reflectors produced substantially as hereinbefore described with reference to the accompanying drawing for the purposes specified.

Dated this 28th day of February, 1925.

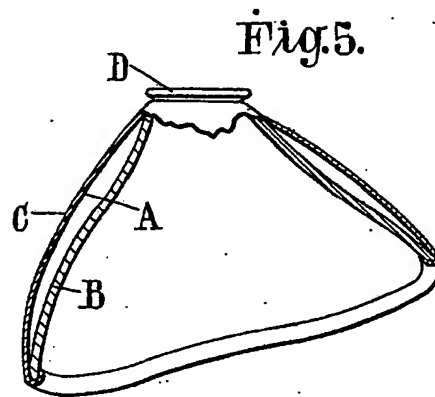
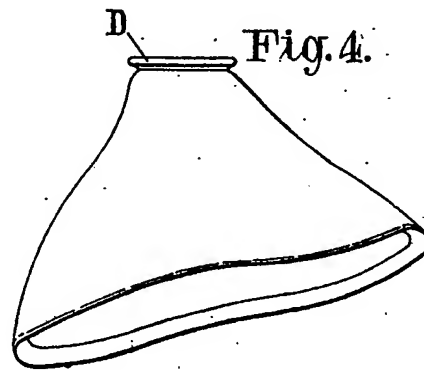
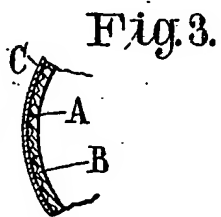
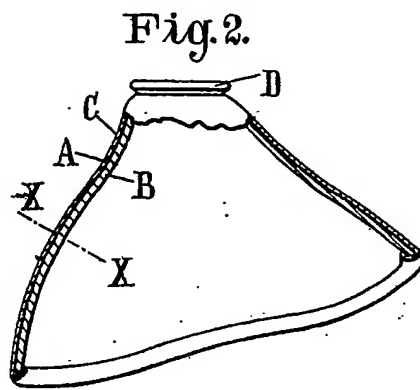
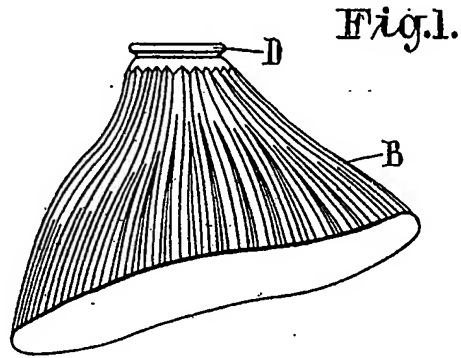
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[This Drawing is a reproduction of the Original on a reduced scale]



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